APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,490	12/20/2005	Richard Colin Fitzgerald	5459-165US/P32,083USA	6307

EXAMINER
HWA, SHYUE JIUNN

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/561,490	FITZGERALD ET AL.
	Examiner	Art Unit	
	James Hwa	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 December 2005</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-12</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-12</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>12/20/2005</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

1.   Claims 1-12 are pending in this office action. This action is responsive to

Applicant's application filed 12/20/2005.

Information Disclosure Statement

2.   The Applicants' Information Disclosure Statements, filed on December 20,

2005, has been received and entered into the record, Since the Information

Disclosure Statements complies with the provisions of MPEP § 609, the

references cited therein have been considered by the examiner. See attached

forms PTO-1449.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

3.   Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

        Claim 12 recites the limitation "the first" in line 19. There is insufficient

antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1, 4 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakajima (US Patent No. 6,868,480 B2, hereinafter "Nakajima").

As to claim 1

Nakajima teaches

"A method of enabling an application, running on an operating system with a first directory hierarchy, to access files stored on a removable storage medium, in which the following steps occur" as a method including the operational flows of the relevant aspects of the relevant components on both the host computing device and the removable active application specific medium (column 3, lines 12-16).

Nakajima further teaches the embedded application is designed to dynamically generate content in response to a hosting computing device accessing the removable medium to retrieve the content (column 2, lines 17-20).

"(a) the application sends a file request with a path that conforms to the first directory hierarchy" as when application requests for contents, i.e. when host computing device accesses removable medium for contents (column 4, lines 3-5).

Nakajima further teaches the processor is coupled to the first storage unit to execute the first programming instructions (column 2, lines 20-22).

"(b) the file system starts a search for the file from a location within the second directory hierarchy that is different from the start location defined by the file request" as the file system of host computing device receives the request, maps the request to locations of the removable medium, and forwards the requests along with the locations to the device driver of the removable medium device (on host computing device)(column 6, line 67 to column 7, line 5).

Nakajima also teaches the controller facilitates the inter-operation and control of the second storage unit in a manner, enabling the present invention to be transparent to the device driver of the host computing device (column 2, lines 34-38).

Nakajima further teaches the locations do not actually exist. Accordingly, they are pseudo locations, and the pseudo locations merely appear to exist (much like virtual memory locations) from the perspective of file system service and device driver for transparency purpose (column 5, lines 51-56).

As to claim 4

Nakajima teaches

"The storage medium is a storage medium that is removable from the device and conforms to the Memory Stick standard" as the removable medium includes a body casing encasing the components. The body casing has the form factor of either a PCMCIA card, a typical game cartridge, a 3.5 in diskette, or a

selected one of a number of conventional non-volatile memory devices, such as

Flash Memory or Memory Stick, for compatibility with existing host computing

devices (column 2, lines 54-60).

As to claim 9

Nakajima teaches

"The step of identifying the location of the start of the search is performed

by mapping a non-existing directory that conforms to the directory hierarchy used

by the operating system to a directory that conforms to the second directory

hierarchy" as in the case of removable active application specific medium, the

locations do not actually exist. Accordingly, they are pseudo locations, and the

pseudo locations merely appear to exist (much like virtual memory locations from

the perspective of file system service and device driver for transparency purpose

(column 5, lines 50-56).

Nakajima further teaches the removable medium device driver on host

computing device makes a number of accesses to retrieve the requested content

from the (pseudo) locations of removable medium (column 7, lines 6-9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness
rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as
set forth in section 102 of this title, if the differences between the subject matter sought to be
patented and the prior art are such that the subject matter as a whole would have been obvious
at the time the invention was made to a person having ordinary skill in the art to which said
subject matter pertains. Patentability shall not be negatived by the manner in which the invention
was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5.   Claims 2, 3, 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima (US Patent No. 6,868,480 B2) as applied to claim 1 above, and further in view of Mullins et al. (US Patent No. 6,985,912 B2, hereinafter "Mullins").

As to claim 2

Nakajima does not explicitly teach the claimed limitation "a prefix is attached to the original file request, and the file system interprets this prefix so as to change where the search begins on the second directory hierarchy".

Mullins teaches

A dynamic database mapping tool would be necessary to provide the object programming application with a map or maps to both the primary and secondary data caches in order to successfully implement dynamic transient memory resident caches for multiple users (column 3, lines 13-17).

Mullins also teaches if from a previous window, the user specified a package prefix for the source code, then a subdirectory matching the prefix name can automatically be created in the specified output directory (column 12, lines 5-9).

Mullins further teaches when a particular template is picked any file prefix/suffix values to be appended to the filename would also be prefixed or appended to the map name automatically (column 13, lines 4-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima and Mullins before him/her, to modify Nakajima a prefix is attached to the original file request because that would allow mapping such object to an XML or other second format data source as taught by Mullins (column 14, lines 62-63).

As to claim 3

Nakajima does not explicitly teach the claimed limitation "the file system filters out parts of the second directory hierarchy during the search so as to present a view of the second directory hierarchy that conforms to the layout of the first directory hierarchy, or to hide parts of the second hierarchy to which access should be denied".

Mullins teaches

This allows more developer control as to how datasets are exchanged, filtered and/or validated between a first data source and a second data source (column 14, lines 63-65).

Mullins also teaches a complete list of pre-configured targets can be viewed from the Connections window in the Generate Java wizard of CocoAdmin. Any Java class can readily be used with CocoBase, whether or not it was generated by the CocoAdmin tool (column 9, line 65 to column 4, line 2).

Mullins further teaches that unlike CocoBase Maps, Link models are not kept in the CocoBase repository. Once a link definition model is created it is saved in the demos/resources directory. As long as the model is in the classpath either directly or in a subdirectory called resources it will find the model properties file and retrieve the navigation information (column 37, lines 47-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima and Mullins before him/her, to modify Nakajima the file system filters out parts of the second directory hierarchy because that would allow mapping such object to an XML or other second format data source as taught by Mullins (column 14, lines 62-63).

As to claim 5

Nakajima does not explicitly teach the claimed limitation "the step of identifying the location of the start of the search occurs automatically without the application having to be aware of this step or of the existence of the second directory hierarchy".

Mullins teaches

A software programming module can automatically generate object source code from at least one database schema map, at least one object programming

application schema, or from a combination of at least one database schema map

and at least one object programming application schema (column 6, lines 10-15).

Mullins further teaches when a particular template is picked any file

prefix/suffix values to be appended to the filename would also be prefixed or

appended to the map name automatically (column 13, lines 4-6).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made, having the teachings of Nakajima and Mullins

before him/her, to modify Nakajima start of the search occurs automatically

because that would allows the mapping information and associated metadata to

be easily accessed as taught by Mullins (column 6, lines 20-22).

As to claim 10

Nakajima does not explicitly teach the claimed limitation "the mapping

allows file interchange to occur".

Mullins teaches

A dynamic database mapping tool would be necessary to provide the

object programming application with a map or maps to both the primary and

secondary data caches in order to successfully implement dynamic transient

memory resident caches for multiple users (column 3, lines 13-18).

Mullins further teaches systems having the flexibility and dynamic

capability to attach data from a database to maps as objects and having the

ability to map one or more databases to various objects in real time. A strong

need exists for such systems that also permit a user to cleanly, transparently and

synchronically transfer data between multiple data sources, while maintaining the

ability for an object programming application to access or use such data in the

system (column 3, lines 46-54).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made, having the teachings of Nakajima and Mullins

before him/her, to modify Nakajima the mapping allows file interchange to occur

because that would allow allows the mapping information and associated

metadata to be easily accessed as taught by Mullins (column 6, lines 20-22).

6.   Claims 6, 7, 11 and 12 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Nakajima (US Patent No. 6,868,480 B2) as applied to claim 1

above, and further in view of Schulze et al. (US Patent No. 6,836,834 B2,

hereinafter "Schulze").

As to claim 6

Nakajima does not explicitly teach the claimed limitation "the location of

the start of the search is not the root of the second directory hierarchy".

Schulze teaches

The system area stores the information in the root directory. This

information includes a 32-byte individual file entry and many additional entries.

The root directory also includes unallocated directory entries (free space), which

will be used when new image files are added to the OTP memory card (column

6, lines 42-47).

Schulze also teaches a controller for enabling the host device to access

the one-time programmable memory and to modify the data files, wherein the

controller (column 2, lines 62-64).

Schulze further teaches stores a second storage allocation table, different

from the first storage allocation table, in the one-time programmable memory to

enable the host device to access the modified data files (column 3, lines 8-11).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made, having the teachings of Nakajima and Schulze

before him/her, to modify Nakajima the location of the start of the search is not

the root of the second directory hierarchy because that would provide the

clusters used to store a plurality of files, such as image files, using the DOS-FAT

file system as taught by Schulze (column 6, lines 26-28).

As to claim 7

Nakajima does not explicitly teach the claimed limitation "the step of

identifying the location of the start of the search is performed by recognizing and

skipping a predefined prefix of a file request path to ensure conformance to the

second directory hierarchy".

Schulze teaches

The current generation FAT and ROOT DIR are appended with necessary

data indicating that new files have been added, depending on what file operation

is in progress. On the other hand, if the test determined that a new generation

system area is needed, revised versions of the FAT and ROOT DIR are created.

In the case of deleted files, the deleted file names are NOT copied to the new area--the deleted file names are simply skipped and the rest of the system area is copied as it was before (column 8, lines 58-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima and Schulze before him/her, to modify Nakajima the search is performed by recognizing and skipping a predefined prefix of a file request path because that would provide the clusters used to store a plurality of files, such as image files, using the DOS-FAT file system as taught by Schulze (column 6, lines 26-28).

As to claim 11

Nakajima does not explicitly teach the claimed limitation "the directory that conforms to the second directory hierarchy is a root directory".

Schulze teaches

The cluster pointer in the new ROOT DIR directory entry changes to point to the new subdirectory area. The previous files are copied into the new subdirectory, and the moved filename is appended to the ROOT DIR (column 9, lines 5-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima and Schulze before him/her, to modify Nakajima the directory that conforms to the second directory hierarchy is a root directory because that would provide the name and

location of the newly stored image files in data area as taught by Schulze

(column 7, lines 4-5).

As to claim 12

Nakajima teaches

"A portable computing device programmed to enable an application

running on it to access files stored on a storage medium" as a removable

medium is equipped with at least a first storage unit, a processor and an

interface. The first storage unit includes first programming instructions designed

to implement an embedded application (column 2, lines 14-17).

"In which the application sends a file request with a path that conforms to a

directory hierarchy used by the device operating system" as when application

requests for contents, i.e. when host computing device accesses removable

medium for contents. Further, the generation operations are performed within

removable medium without exposing embedded applications (column 4, lines 3-7).

"The device being further programmed to search for the path in the file

request starting from a location within a second directory hierarchy used by the

storage medium, the second directory hierarchy being incompatible with the first"

as the file system of host computing device receives the request, maps the

request to locations of the removable medium, and forwards the requests along

with the locations to the device driver of the removable medium device (column

6, line 67 to column 7, line 5).

Nakajima also teaches the controller facilitates the inter-operation and control of the second storage unit in a manner, enabling the present invention to be transparent to the device driver of the host computing device (column 2, lines 34-38).

Nakajima does not explicitly teach the claimed limitation "the second directory hierarchy being incompatible with the first".

Schulze teaches

Stores a second storage allocation table, different from the first storage allocation table, in the one-time programmable memory to enable the host device to access the modified data files (column 3, lines 8-12).

The processed digital image file is provided to a memory card interface, which stores the digital image file on the OTP memory card. The OTP memory card can use many different physical form factors and electrical interconnection standards which are well known to those skilled in the art (column 4, lines 37-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nakajima and Schulze before him/her, to modify Nakajima the second directory hierarchy being incompatible with the first because that would allows the digital camera to capture a plurality of digital images and store the image files using OTP memory card as taught by Schulze (column 6, line 66 to column 7, line 1).

7.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima (US Patent No. 6,868,480 B2) as applied to claim 1 above, and further

in view of Mullins et al. (US Patent No. 6,985,912 B2) and Schulze et al. (US

Patent No. 6,836,834 B2).

As to claim 8

Nakajima does not explicitly teach the claimed limitation "recognizing and

skipping the predefined prefix is only done once per path on the first occurrence

of the predefined prefix".

Mullins teaches

When a particular template is picked any file prefix/suffix values to be

appended to the filename would also be prefixed or appended to the map name

automatically (column 13, lines 4-6).

Schulze teaches a FAT compatible disk structure that can be used to

define the location of images stored on the OTP memory card (column 7, lines

37-39; see also figure 5).

Schulze also teaches the cluster pointer in the new ROOT DIR directory entry

changes to point to the new subdirectory area. The previous files are copied into

the new subdirectory, and the moved filename is appended to the ROOT DIR

(column 9, lines 5-10).

Schulze further teaches in write-once or one-time programmable devices

that have an unprogrammed state of 1's, the entire FAT and root directory must

be written at once if any of the previously written data need to be modified

(column 2, lines 25-28).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made, having the teachings of Nakajima, Mullins and

Schulze before him/her, to modify Nakajima the predefined prefix is only done

once per path on the first occurrence because that would provide the clusters

used to store a plurality of files, such as image files, using the DOS-FAT file

system as taught by Schulze (column 6, lines 26-28).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant'

disclosure.

Fitzgerald (US Patent Application No. 2007/0168714 A1).

Mullins (US Patent No. 5,857,197 A).

Contact Information

Any inquiry concerning this communication or earlier communications from

the examiner should be directed to James Hwa whose telephone number is 571-

270-1285.

The examiner can normally be reached on 8:00 – 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Don Wong can be reached on 571-272-1834. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-
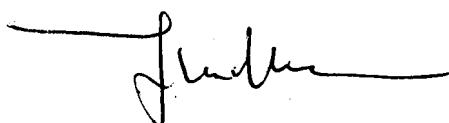
8300.

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CANADA) or 571-272-1000.

JH
8/10/2007

James Hwa
Examiner
Art Unit 2163

Hung Vy
For SPE Don Wong